

# IN THE CLAIMS

*The status of the claims as presently amended is as follows:*

## 1. (Previously Presented) A speaker system comprising:

- a speaker array including a plurality of speakers arranged into a matrix; and
- a sound signal processing unit that divides a sound source into at least three frequency bands and divides the speaker array into at least three reproduction regions corresponding to the number of the frequency bands to allocate the frequency bands to the divided reproduction regions, respectively,
- wherein the number of speakers allocated to each of the at least three reproduction regions is different, and
- wherein the frequency band with a highest passing frequency is allocated to the reproduction region with a smallest number of speakers.

## 2. (Previously Presented) A speaker system comprising:

- a speaker array including a plurality of speakers arranged into a matrix; and
- a sound signal processing unit that divides a sound source into a plurality of frequency bands and divides the speaker array into a corresponding number of reproduction regions to allocate the frequency bands to the divided reproduction regions, respectively,
- wherein the number of speakers allocated to each of the reproduction regions is different,
- wherein the frequency band with a highest passing frequency is allocated to the reproduction region with a smallest number of speakers,
- wherein the plurality of frequency bands includes at least a low passing frequency band and a high passing frequency band,
- wherein the sound signal processing unit sets the speaker array into left and right reproduction regions for reproducing a left channel and a right channel of a stereo sound source or surround sound source,
- wherein the left and right reproduction regions for the low passing frequency band are located at a central portion of the speaker array,
- wherein the left and right reproduction regions for the high passing frequency band are located at opposite end portions of the speaker array, and
- wherein the number of speakers allocated to the left and right reproduction regions decreases as the passing frequency of the frequency bands increases.

3. (*Previously Presented*) The speaker system according to Claim 2, wherein the sound signal processing unit processes a sound signal of a center channel of the stereo sound source or surround sound source so as to become non-directional.

4. (*Previously Presented*) The speaker system according to Claim 2, wherein:

the sound signal processing unit sets left and right center channel reproduction regions that reproduce a center channel of the stereo sound source or surround sound source,

the left and right center channel reproduction regions for the high passing frequency band are located at a central region of the speaker array,

the left and right center channel reproduction regions for the low passing frequency band are positioned farthest away from the left and right center channel reproduction regions for the high frequency band, and

the number of speakers allocated to the left and right center channel reproduction regions decreases as the passing frequency of the frequency bands increases.

5. (*Currently Amended*) A speaker system comprising:

a speaker array including a plurality of speakers arranged into a matrix; and

a plurality of speaker driving circuits each for driving one of the speakers,

wherein each of the speaker driving circuits has a primary filter that filters sound signals of left and right channels of a stereo sound source or surround sound source, and

wherein a passing frequency band permitted to pass in each of the primary filter is set to decrease from the speakers positioned at opposite end portions of the speaker array to the speaker or speakers positioned at a central portion of the speaker array, and

wherein each of the speaker driving circuits has a secondary filter that filters a sound signal of the center channel of the stereo sound source or surround sound source and the passing frequency band of the secondary filter of each of the speaker driving circuits is set to increase from the speakers positioned at a peripheral region of the speaker array to the speaker or speakers positioned at a central region of the speaker array.

6. *(Previously Presented)* The speaker system according to Claim 5, wherein the passing frequency band of the primary filter is divided into a high frequency band, a medium frequency band, and a low frequency band, and the number of the speaker driving circuits set to pass the high frequency band is smaller than the number of the speaker driving circuits set to pass the low or medium frequency band.

7. *(Canceled)*

8. *(Previously Presented)* The speaker system according to Claim 5, wherein the speaker driving circuits process a sound signal of a center channel of the stereo sound source or surround sound source so as to become non-directional.

9. *(Canceled)*

10. *(Previously Presented)* A speaker system comprising:

a speaker array including a plurality of speakers arranged into a matrix; and

a sound signal processing unit that divides a sound source into a plurality of frequency bands and divides the speaker array into a corresponding number of reproduction regions to allocate the frequency bands to the divided reproduction regions, respectively,

wherein the number of speakers allocated to each of the reproduction regions is different,

wherein the frequency band with a highest passing frequency is allocated to the reproduction region with a smallest number of speakers,

wherein the plurality of frequency bands includes at least a low passing frequency band and a high passing frequency band,

wherein the sound signal processing unit sets the speaker array into left and right reproduction regions for reproducing a left channel and a right channel of a stereo sound source or surround sound source, and

wherein the left and right channel reproduction regions for the high passing frequency band are located at opposite end portions of the speaker array and have a smaller number of speakers than the left and right channel reproduction regions for the high passing frequency band.

11. (*Previously Presented*) A speaker system comprising:

- a speaker array including a plurality of speakers arranged into a matrix; and
- a sound signal processing unit that divides a sound source into a plurality of frequency bands and divides the speaker array into a corresponding number of reproduction regions to allocate the frequency bands to the divided reproduction regions, respectively,
  - wherein the number of speakers allocated to each of the reproduction regions is different,
  - wherein the frequency band with a highest passing frequency is allocated to the reproduction region with a smallest number of speakers,
  - wherein the plurality of frequency bands includes at least a low passing frequency band and a high passing frequency band,
  - wherein the sound signal processing unit sets left and right center channel reproduction regions that reproduce a center channel of the stereo sound source or surround sound source, and
  - wherein the left and right center channel reproduction regions for the high passing frequency band are located at a central region of the speaker array and have a smaller number of speakers than the left and right center channel reproduction regions for the low passing frequency band.

12. (*Previously Presented*) A speaker system comprising:

- a speaker array including a plurality of speakers arranged into a matrix; and
- a sound signal processing unit that divides a sound source into a plurality of frequency bands and divides the speaker array into a corresponding number of reproduction regions to allocate the frequency bands to the divided reproduction regions, respectively,
  - wherein the number of speakers allocated to each of the reproduction regions is different,
  - wherein the frequency band with a highest passing frequency is allocated to the reproduction region with a smallest number of speakers,
  - wherein the plurality of frequency bands includes at least a low passing frequency band and a high passing frequency band,
  - wherein the sound signal processing unit sets the speaker array into left and right reproduction regions for reproducing a left channel and a right channel of a stereo sound source or surround sound source,

wherein the sound signal processing unit sets left and right center channel reproduction regions that reproduce a center channel of the stereo sound source or surround sound source,

wherein the left and right channel reproduction regions for the high passing frequency band are located at opposite end portions of the speaker array and have a smaller number of speakers than the left and right channel reproduction regions for the high passing frequency band, and

wherein the left and right center channel reproduction regions for the high passing frequency band are located at a central region of the speaker array and have a smaller number of speakers than the left and right center channel reproduction regions for the high passing frequency band.

13. (*Previously Presented*) A speaker system comprising:

a speaker array including a plurality of speakers arranged into a matrix; and

a sound signal processing unit that divides a sound source into a plurality of frequency bands and divides the speaker array into a corresponding number of reproduction regions to allocate the frequency bands to the divided reproduction regions, respectively,

wherein the number of speakers allocated to each of the reproduction regions is different,

wherein the frequency band with a highest passing frequency is allocated to the reproduction region with a smallest number of speakers,

wherein the plurality of frequency bands includes at least a low passing frequency band and a high passing frequency band,

wherein the sound signal processing unit sets the speaker array into left and right reproduction regions for reproducing a left channel, a right channel, and a center channel of a stereo sound source or surround sound source,

wherein the left and right channel reproduction regions for the high passing frequency band are located at opposite end portions of the speaker array and have a smaller number of speakers than the left and right channel reproduction regions for the high passing frequency band, and

wherein the center channel reproduction region for the high passing frequency band are located at a central region of the speaker array and has a smaller number of speakers than the center channel reproduction region for the high passing frequency band.